WHAT IS CLAIMED IS:

1. A rechargeable metal air electrochemical cell comprising:

a pair of cathode portions attached to each other with a collapsible mechanism;

an anode portion disposed in ionic communication and electrical separation with each cathode portion;

ionic media to provide ionic communication between the anode portions and the cathode portions;

a pair of third charging electrodes in ionic communication with the anode portions.

2. The rechargeable metal air cell as in claim 1, wherein the collapsible mechanism allows contraction of the cathode portions to open space between the cathode portions and the anode portions to facilitate oxygen bubbling during charging.

3. The rechargeable metal air cell as in claim 1, wherein the collapsible mechanism allows contraction of the cathode portions to cut off air supply during charging or during idle periods.

4. The rechargeable metal air cell as in claim 1, wherein the collapsible mechanism allows expansion of the cathode portions to open more space for the air channel to supply air or oxygen during discharging.

5. The rechargeable metal air cell as in claim 1, wherein the cathode portions are removable, replaceable and/or capable of being reconditioned.

6. The rechargeable metal air cell as in claim 1, wherein the anode portions are removable and replaceable.

7. The rechargeable metal air cell as in claim 1, wherein the collapsible mechanism allows contraction of the cathode portions to allow the cathode portions to be disconnected from the anode portions during idle or during charging process.

8. The rechargeable metal air cell as in claim 1, wherein the collapsible

mechanism comprises a mechanical assembly.

9. The rechargeable metal air cell as in claim 1, wherein the collapsible mechanism comprises an electro-mechanical assembly.

10. The rechargeable metal air cell as in claim 1, wherein the collapsible mechanism comprises a shape memory alloy system.